

WHAT IS CLAIMED IS:

1. A thin-film magnetic head assembly comprising:
a core block provided with a sliding surface which
5 slides over a medium, the core block comprising a
magnetoresistive element disposed adjacent to an insulating
layer;
a base plate on which the core block is mounted;
an insulating junction substrate mounted on at least one
10 surface of the base plate; and
lines connecting the magnetoresistive element to
terminals disposed on the junction substrate,
wherein the relationship $C_{PWB}/C_{MR} < 1.5$ is satisfied,
wherein C_{MR} is the capacitance of the core block including
15 the magnetoresistive element, and C_{PWB} is the capacitance of
a section including the junction substrate and the base plate.
2. A thin-film magnetic head assembly according to
Claim 1, wherein the magnetoresistive element is disposed
20 between a plurality of insulating layers inside the core
block.
3. A thin-film magnetic head assembly according to
Claim 1, wherein the total of the capacitance C_{MR} and the
25 capacitance C_{PWB} is 5 pF or less.
4. A thin-film magnetic head assembly according to
Claim 1, wherein the total of the capacitance C_{MR} and the

capacitance C_{PWB} is 1 to 5 pF.

5. A magnetic recording and playback apparatus comprising:

5 a thin-film magnetic head assembly according to Claim 1;
and

a rotary cylinder,

wherein the thin-film magnetic head assembly is mounted in a recess formed in the periphery of the rotary cylinder.

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6. A thin-film magnetic head assembly according to Claim 1, wherein the core block comprises:

a pair of core halves, the core halves being joined together; and

15 a built-in layer disposed at the junction between the core halves, the built-in layer comprising the magnetoresistive element, an electrode layer connected to the magnetoresistive element, and insulating layers or shielding layers, the insulating layers or shielding layers sandwiching
20 the magnetoresistive element and the electrode layer,

wherein the electrode layer is connected to pads disposed outside the built-in layer, and the lines connected to the terminals of the junction substrate are connected to the pads,

25 wherein a capacitance is produced by the magnetoresistive element disposed between the insulating layers or shielding layers in the core block.